

PATENT COOPERATION TREATY

From the
INTERNATIONAL SEARCHING AUTHORITY

To:

see Form PCT/ISA/220

PCT

WRITTEN OPINION OF THE
INTERNATIONAL SEARCHING AUTHORITY

(PCT Rule 43bis.1)

Date of mailing
(day/month/year) see Form PCT/ISA/210 (sheet 2)

Applicant's or agent's file reference
see Form PCT/ISA/220

FOR FURTHER ACTION
See paragraph 2 below

International application No.
PCT/FR2004/000093

International filing date (day/month/year)
16.01.2004

Priority date (day/month/year)
21.01.2003

International Patent Classification (IPC) or both national classification and IPC
G06K9/00

Applicant
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1. This opinion contains indications relating to the following items:

- ☒ Box No. I Basis of the opinion
- ☐ Box No. II Priority
- ☐ Box No. III Non-establishment of opinion with regard to novelty, inventive step and industrial applicability
- ☐ Box No. IV Lack of unity of invention
- ☒ Box No. V Reasoned statement under Rule 43bis.1 (a)(i) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement
- ☐ Box No. VI Certain documents cited
- ☐ Box No. VII Certain defects in the international application
- ☐ Box No. VIII Certain observations on the international application

2. **FURTHER ACTION**

If a demand for international preliminary examination is made, this opinion will be considered to be a written opinion of the International Preliminary Examining Authority ("IPEA") except that this does not apply where the applicant chooses an Authority other than this one to be the IPEA and the chosen IPEA has notified the International Bureau under Rule 66.1bis(b) that written opinions of this International Searching Authority will not be so considered.

If this opinion is, as provided above, considered to be a written opinion of the IPEA, the applicant is invited to submit to the IPEA a written reply together, where appropriate, with amendments, before the expiration of 3 months from the date of mailing of Form PCT/ISA/220 or before the expiration of 22 months from the priority date, whichever expires earlier.

For further options, see Form PCT/ISA/220.

3. For further details, see notes to Form PCT/ISA/220.

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Box No. I. Basis of this opinion

1. With regard to the **language**, this opinion has been established on the basis of the international application in the language in which it was filed, unless otherwise indicated under this item.
☐ This opinion has been established on the basis of a translation from the original language into the following language , which is the language of a translation furnished for the purposes of international search (under Rules 12.3 and 23.1(b)).
2. With regard to any **nucleotide and/or amino acid sequence** disclosed in the international application and necessary to the claimed invention, this opinion has been established on the basis of:
 - a. type of material
☐ a sequence listing
☐ table(s) related to the sequence listing
 - b. format of material
☐ in written format
☐ in computer readable form
 - c. time of filing/furnishing
☐ contained in the international application as filed
☐ filed together with the international application in computer readable form
☐ furnished subsequently to this Authority for the purposes of search
3. ☐ In addition, in the case that more than one version or copy of a sequence listing and/or table relating thereto has been filed or furnished, the required statements that the information in the subsequent or additional copies is identical to that in the application as filed or does not go beyond the application as filed, as appropriate, were furnished.
4. Additional comments:

Box No. V Reasoned statement under Rule 43b/s.1(a)(i) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement

1. Statement

Novelty	Yes: Claims	3,8,11-14,16
	No: Claims	1,2,4-7,9,10,15,17
Inventive Step	Yes: Claims	8, 11-14
	No: Claims	3,16
Industrial Applicability	Yes: Claims	1-17
	No: Claims	

2. Citations and explanations:

see separate sheet

Concerning Point V.

1. The following documents are cited in the present notification:

D1: US-A 5 737 439 (LAPSLEY PHILIP DEAN ET AL) 7 April 1998 (1998-04-07)

D2: US 2002/164057 A1 (KRAMER ALAN) 7 November 2002 (2002-11-07)

D3: FR-A-2 761 180 (SAGEM) 25 September 1998 (1998-09-25)

D4: FR-A-2 749 955 (THOMSON CSF) 19 December 1997 (1997-12-19)

D5: US-A 4 728 186 (FUJITSU LTD) 1 March 1988 (1988-03-01)

2. INDEPENDENT CLAIMS 1 AND 9

- 2.1 The present application does not fulfill the conditions mentioned in Article 33(1) PCT, the subject-matter of claims 1 and 9 not conforming to the novelty criterion defined by Article 33(2) PCT:

Claim 1: Document D1 describes (the references in brackets apply to this document) a person recognition device ("anti-fraud biometric scanner", see the abstract) having on the same base (308 in Fig. 6; 515 in Fig. 9) both a fingerprint image sensor (307; 510) and a sensor (303; 510) for spectral transmission information relating to the skin of the finger whose print is recorded by the print image sensor.

Claim 9: Document D1 also describes a person recognition method in which both a fingerprint image and spectral transmission information relating to the skin of a finger whose print is detected are detected using the same device, which has a print image sensor (307; 510) and a spectral transmission information sensor (303; 510), and both the print image and the spectral transmission information are used for recognizing the person (column 7, lines 18-25; column 8, lines 25-40).

- 2.2 Documents D2 and D3 also disclose these characteristic elements of the present application; see the passages mentioned in the Search Report. D2 indicates explicitly that the blood pulsation sensors are located on the same chip as the print image sensor (claim 5; see paragraph 25).

3. DEPENDENT CLAIMS 2-7, 10, 15-17

The claims do not contain characteristics which, when combined with the characteristics of any claim to which they refer, satisfy the requirements of the PCT in respect of novelty and/or inventive step (Article 33 2) and 3) PCT).

In particular, the combination of the characteristics mentioned in claim 3 involves a technical approach which is normal for the person skilled in the art: the use of a (quasi) linear print image sensor (D4).

Concerning claim 16: D5, which also relates to fingerprint imaging and authenticity detection by measuring spectral transmission information relating to the skin, discloses the use of a single light source for the print acquisition and the spectral information acquisition.

4 DEPENDENT CLAIMS 8, 11-14

The combination of the characteristics of claims 8, 11-14 is not found in the prior art and is not obviously suggested by it for the following reasons:

The idea of "alternately" recording the image and the spectral information is not regarded as obvious. This expression, however, is **clear** (Art. 6 PCT) **only** in the context of fingerprint imaging by a linear sensor (claim 3).

It is only this alternate recording which allows the checking described in claim 14.